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Please replace the title on page 47, line 1, starting with Table 6: Summary of activity of certain preferred analogs derived from the IL-6R (SEQ IDs NO:77 to NO:82).

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So as not to overburden the Patent Office Examiner, and following the recommendation of the Patent Office Sequence Help Desk, identical sequences with only an "L-D" form variation were represented only once in the enclosed Sequence Listing.

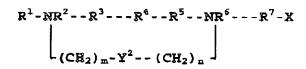
## IN THE CLAIMS:

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Please cancel claims 12-28.

Please add the following new claims:

29. (New) The backbone cyclized analog of claim I having the general formula:



wherein m and n are 1 to 5;

X designates a terminal carboxy acid, amide or alcohol group;

Rl is (D)Bip, Gln, Lys, Lys(ZCL) Dab or absent;

R2 is (L) or (D) Lys, Gly, Ala, (D) Phe or Trp;

R3 is (D) Cit, Lys, (D)Bip or absent;

R4 is Orn, 4PyrAla, (L) or (D)Dab, (L) or (D)Arg, Lys or Dpr;

R5 is HomArg, Orn, Lys, Lys(2CL), Arg, Arg(Mtr) or (D)Glu;

R6 is Asn, (L) or (D) Trp, (D) Gln or (D) Ala;

R7 is Arg, (L) or (D)Trp, (L) or (D)Gln, Abu, Glu or (p-NO2)Phe; and

Y2 is amide, thioether, thioester or disulfide.

30. (New) The backbone cyclized analog of claim 29 having the general formula 3:

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$$R^{1}$$
 - - -  $NR^{2}$  - -  $R^{3}$  - - -  $R^{4}$  - - -  $NR^{5}$  - -  $R^{6}$  -  $X$ 

$$\left[ (CH_{2})_{m} - Y^{2} - (CH_{2})_{n} \right]$$

Formula No. 3

wherein m and n are 1 to 5;

X designates a terminal carboxy acid, amide or alcohol group;

R1 is (D)Bip, Gln, Lys, Lys(ZCL) or Dab;

R2 is (D) Lys, Gly, Ala or Trp

R3 is Orn, 4PyrAla, (L) or (D)Dab, (D)Arg, Lys or Dpr;

R4 is Lys, Lys(ZCL), Arg, Arg(Mtr) or (D)Glu;

R<sup>5</sup> is Asn, Trp or (D)Ala;

R<sup>6</sup> is Arg, (p-NO<sub>2</sub>) Phe, (L) or (D) Trp, Gln, Abu or Glu; and

Y<sup>2</sup> is amide, thioether, thioester or disulfide.

31. (New) The backbone cyclized analog of claim 29 having the general formula 4:

$$NR^{1}-R^{2}-R^{3}-R^{4}-NR^{5}-R^{6}-R^$$

Formula No. 4

wherein m and n are 1 to 5;

X designates a terminal carboxy acid, amide or alcohol group;

R1 is (D) Phe or Lys;

R<sup>2</sup> is (D)Cit, Lys or (D)Bip;

R<sup>3</sup> is Dpr, 4PyrAla or (L) or (D) Arg;

Ra is HomArg, Orn or Lys;

R<sup>5</sup> is (D)Gln or (L) or (D) Trp;

 $R^6$  is (L) or (D)Gln or (p-NO<sub>2</sub>)Phe; and

Y<sup>2</sup> is amide, thioether, thioester or disulfide.

- 32. (New) A pharmaceutical composition comprising a backbone cyclized IL-6 antagonist comprising a peptide sequence of five to twenty amino acids that incorporates at least one building unit, said building unit containing one nitrogen atom of the peptide backbone connected to a bridging group comprising an amide, thioether, thioester or disulfide, wherein the at least one building unit is connected via the bridging group to form a cyclic structure, together with a pharmaceutically acceptable carrier or diluent.
- 33. (New) The pharmaceutical composition of claim 14 wherein the IL-6 antagonist is a backbone cyclized peptide analog having the general formula 1:

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R^{249}-R^{250}-R^{251}-R^{252}-R^{253}-NR^{254}-R^{255}-R^{256}-R^{257}-NR^{258}-K
-(CH<sub>2</sub>)<sub>m</sub>-Y<sup>2</sup>-(CH<sub>2</sub>)<sub>n</sub>
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Formula No. 1

wherein m and m are 1 to 5;

X designates a terminal carboxy acid, amide or alcohol group;

 $R^{249}$  is Trp, (L) or (D) Lys, (L) or (D) Tyr or (D) Phe;

R<sup>250</sup> is Arq;

R<sup>251</sup> is (L) or (D) Lew or Lys;

 $R^{252}$  is (L) or (D) Arg;

 $R^{253}$  is (D) or (L) Phe

R<sup>254</sup> is Ala;

R<sup>255</sup> is (D) or (L) Leu or is Lys;

 $R^{256}$  is absent or is (L)\or (D)Arg;

 $R^{257}$  is (L) or (D) Tyr;

R<sup>258</sup> is Ala; and

Y<sup>2</sup> is amide, thioether, thioester or disulfide.

34. (New) The pharmaceutical composition of claim 33 wherein the IL-6 antagonist is a backbone cyclized peptide analog having the formula:

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Trp-Arg-Lys-(D) Arg-Phe-AlaC3-Leu-Arg-(D) Tyr-AlaN3-NH2

- 35. (New) The pharmaceutical composition of claim 33 wherein the IL-6 antagonist is a backbone cyclized peptide analog having the formula: (D) Lys-Arg-(D) Leu-(D) Arg-(D) Phe-AlaC3-(D) Leu-Arg-(D) Tyr-AlaN3-NH2
- 36. (New) The pharmaceutical composition of claim 33 wherein the IL-6 antagonist is a backbone cyclized peptide analog having the formula:
  - (D) Phe-Arg-(D) Leu-(D) Arg-(D) Phe-AlaC3-Leu-(D) Tyr-AlaN3-NH,
- 37. (New) The pharmaceutical composition of claim 32 wherein the IL-6 antagonist is a backbone cyclized peptide analog having the general formula:

wherein m and n are 1 to 5:

X designates a terminal carboxy acid, amide or alcohol group;

Rl is (D)Bip, Gln, Lys, Lys(ZCL) Dab or absent;

R2 is (L) or (D) Lys, Gly, Ala, (D) Phe or Trp;

R3 is (D) Cit, Lys, (D)Bip or absent;

R4 is Orn, 4PyrAla, (L) or (D)Dab, (L) or (D)Arg, Lys or Dpr;

R5 is HomArg, Orn, Lys, Lys(ZCL), Arg, Arg(Mtr) or (D)Glu;

R6 is Asn, (L) or (D) Trp, (D) Gln or (D) Ala;

R7 is Arg, (L) or (D)Trp, (L) or (D)Gln, Abu, Glu or (p-NO2)Phe; and



Y2 is amide, thioether, thioester or disulfide.

38. (New) The pharmaceutical composition of claim 37 wherein the IL-6 antagonist is a backbone cyclized peptide analog having the general formula 3:

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$$R^{1}$$
 ---  $NR^{2}$  --  $R^{3}$  ---  $R^{4}$  ---  $NR^{5}$  --  $R^{6}$  -  $X$ 

(CH<sub>2</sub>)  $_{m}$  -  $Y^{2}$  -- (CH<sub>2</sub>)  $_{n}$  ---

Formula No. 3

wherein m and n are 1 to 5;

X designates a terminal carboxy acid, amide or alcohol group;

R1 is (D)Bip, Gln, Lys, Lys(ZCL) or Dab;

R2 is (D)Lys, Gly, Ala or Trp

R3 is Orn, 4PyrAla, (L) or (D)Dab, (D)Arg, Lys or Dpr;

R\* is Lys, Lys(ZCL), Arg, Arg(Mtr) or (D)Glu;

R<sup>5</sup> is Asn, Trp or (D)Ala;

 $R^6$  is Arg, (p-NO2)Phe, (L) or (D)Trp, Gln, Abu or Glu; and  $Y^2$  is amide, thioether, thioester or disulfide.

39. (New) The pharmaceutical composition of claim 37 wherein the IL-6 antagonist is a backbone cyclized peptide analog having the general formula 4:

$$NR^{1}-R^{2}-R^{3}-R^{4}-NR^{5}-R^{6}-X$$

$$CH_{2}_{m}-Y^{2}-CCH_{2}_{n}$$

Formula No. 4

wherein m and n are 1 to 5;

X designates a terminal carboxy acid, amide or alcohol group;

R1 is (D) Phe or Lys;

R<sup>2</sup> is (D)Cit, Lys or (D)Bip;

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